



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,891	08/31/2001	Donald J. Remboski	IA00011	4081
23330	7590	03/29/2005	EXAMINER	
MOTOROLA, INC. Corporate Law Department - #56-238 3102 North 56th Street Phoenix, AZ 85018			JAIN, RAJ K	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,891

Applicant(s)

REMBOSKI ET AL.

Examiner

Raj K Jain

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☒ Other: *Examiners amendment*.

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tom Miller on March 18, 2005.

Replace claims 14, 16, 17, and 21 with new claims 14, 16, 17 and 21 as follows;

14. (New) A vehicle communication network comprising: an active network comprising a plurality of network elements coupled by a plurality of communication links joining the network elements, the plurality of communication links being arranged to communicate data packets between the network elements; a vehicle including the active network; a first device; and a second device, wherein the first device and the second device are communicatively coupled by the active network; wherein a first network element and a second network element are coupled with a communication link using a first network protocol, the second network element coupled to another network element different from the first network element with a communication link using a second network protocol.

16. (New) The vehicle communication network of claim 14, wherein at least one of the first, and second, network protocols are specified in accordance with a shared-access bus protocol.

17(New) The vehicle communication network of claim 14, wherein at least one of the first, and second network protocols is not a shared-access bus protocol.

21. (New) The vehicle of claim 20, wherein the loop network protocol uses a data rate different than one of the and second network protocols.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behfar et al (WO 00/77620 A2) in view of Oliveira et al (US006579208B2), further in view of Lee et al. (US006609127B1).

Regarding claims 1, 2 and 14, Behfar discloses a system for integrating components into a vehicle, wherein the components comprise devices (29-37) coupled to an in-car network (fig 2), the devices (29-37) communicating via connection media 12 (fig 1), and the network further providing easy reconfiguration and upgrade to the vehicle devices (see abstract, page 2 lines 7-35) as necessary. Furthermore, the first

device communicates with the second device using the IP address designated for return communications forming a loop communications path.

Behfar fails to disclose the coupling of devices through an active network for controlling the flow of data amongst the devices.

Oliveira discloses the use of a control area network (CAN) within vehicles for the purpose of transferring data amongst different devices (such as brakes, fuel control, climate control, suspension, etc. see col 3 lines 7-31). The CAN system electronically interconnects all the network members by a simple two wire, twisted pair cable and provides high-speed serial digital data transfer between all members in the system. The network members consist of the various vehicle systems and sub-systems, or in many cases, their electronic control units. Oliveira uses the CAN for monitoring gearshift control with digital data interface to allow transfer of digital data between the control unit and other vehicle systems through the CAN system (see col 4 lines 30-60). Since CANs may be used to control any number of vehicular components as well as the gear shift control (see col 3 line 20), thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CAN network within Behfar to control plurality of network devices in order to control the flow of data amongst the devices as appropriate.

Behfar discloses a system for integrating components into a vehicle, wherein the components comprise devices (29-37) coupled to an in-car network (fig 2).

Oliveira discloses the use of a control area networks (CAN) within vehicles.

Behfar and Oliveira fail to disclose the use of active networks.

Lee discloses coupling of devices (within a home or business see col 2 line 20) through the use of control area networks (CAN), which also comprises of active networks such as WANs, LANs, etc. as well as passive networks such as fibreoptic links (see col 3 lines 29-35). Active networks and CANs provide coupling of network devices to effectively communicate throughout the network for controlling traffic flow through dynamic adaptation of processing elements deployed within the network, (see Figs 1 & 2, col 3 lines 19-27, col 4 lines 32-36).

Since CANs and active networks both provide a communications coupling and controlled data flow through network devices, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of a CAN within Behfar for the purpose of controlling and dynamically reconfiguring data flow through any number of network devices within a vehicle that may also include active networks such as in-car Ethernet LAN.

Further regarding claim 14, Behfar discloses first network element coupled with second network element using a first network protocol and second network element communicating with another network element different from first element with a second network protocol. (see Fig 2, page 3 line 40 – page 4 lines 15, the first element may be for example GPS receiver (30) that communicates with second network element such as vehicle bus (23) via the first protocol. Second network element (vehicle bus 23) communicating coupled to another network element different from first network element using a second network protocol, see claims 4-6).

Regarding claims 3-5 and 15, Behfar discloses active network elements that can be replaced or reconfigured which may also include switch, router and/or bridge (page 6 lines 1-30 that may include a switch, router or bridge for packet transfer).

Regarding claims 6, Behfar discloses packet data network (see abstract, page 3 L40).

Regarding claim 7, and 22, Behfar discloses loop topology with first network element that may be considered to be a node A connected via the vehicle network platform to any other element say node B in circular path forming the loop (see Fig 2).

Regarding claim 8, and 21, Behfar discloses different media within a network that may be supported, each media and therefore path consists of different data rates which is fundamental to the media of choice and therefore a loop with for example with elements employing a optical ring would have a data different than those employing twisted pair wires (see Fig 2, page 3 lines 30-40).

Regarding claims 9, 10, 12, 13 and 18, Behfar discloses loop/ring or multidrop topology comprising of one or plurality of active network elements (see Fig 2 and abstract) based on desired configurations of the user.

Regarding claims 11, 20, Behfar discloses a vehicle structure with plurality of active network elements configured in loop topology if only two devices are used thus a configuration consisting of first device in loop with second device would be formed (see abstract, Fig 2).

Regarding claims 16, Behfar discloses first and second network protocols that may be in accordance with shared – access bus (23) (see Fig 2, page 4 lines 15-26)

Art Unit: 2664

protocol, (The buses may function as devices themselves and therefore have same protocols).

Regarding claims 17, Behfar discloses first network element coupled with second network element using a first network protocol and second network element communicating with another network element different from first element with a second network protocol. (see Fig 2, page 3 line 40 – page 4 lines 15, the first element may be for example GPS receiver (30) that communicates with second network element such as vehicle bus (23) via the first protocol. Second network element (vehicle bus 23) communicating coupled to another network element different from first network element using a second network protocol, see claims 4-6).

Regarding claim 18, Oliveira and Lee discloses CAN protocol (see abstract of Oliveira and Fig 5a, col 3 lines 58-67 and Fig 1 of Lee).

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

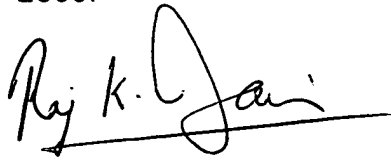
Art Unit: 2664

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

A handwritten signature in black ink, appearing to read "Raj K. Jain", written over a horizontal line.

RJ

March 18, 2005